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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,701	09/19/2006	Wai-Kuen Lui	865-B-PCT-US	3093

7590 03/04/2008  
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EXAMINER
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MAI, HAO D

ART UNIT	PAPER NUMBER
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3732

MAIL DATE	DELIVERY MODE
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03/04/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/593,701	<b>Applicant(s)</b> LUI ET AL.	
	<b>Examiner</b> HAO D. MAI	<b>Art Unit</b> 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                        |                                                                   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>09/19/2006</u> .                                              | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-4, 7-8, 11, and 15, are rejected under 35 U.S.C. 102(b) as being anticipated by Preciutti (4920992).**

Preciutti discloses a dental flossing apparatus 100 comprising: a teeth-cleaning means 10, and a handling means 50; whereby the teeth-cleaning means 10 and the handling means 50 are united and pliable as well as flexible at their points of joinder/elbow comprising of a sphere 30 and socket/cavity 60 (Fig. 3). The teeth-cleaning means 10 comprises arms 12 and 18 securing a length of interdental material 40 of dental floss. The teeth-cleaning means 10, with its sphere 10 rotating within the socket/cavity 60, is capable of a range of flexibility from 0 to about 90 degrees relative to its original position (Fig. 3; column 2 line 50-52); and with the tightening collar 70, teeth-cleaning means 10 is capable of adhering to its new position after flex adjustment (Fig. 3; column 2 lines 16-19). The dental flossing apparatus is disclosed to be made out of a molded plastic material (column 4 lines 30-35).

3. **Claims 1-2, 7, and 9-10, are (further) rejected under 35 U.S.C. 102(b) as being anticipated by Halm (5052071)**

Halm discloses a toothbrush or dental hygiene apparatus (Fig. 1) comprising: a teeth-cleaning means 20, and a handling means 14, whereby the teeth-cleaning means 20 and the

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handling means 14 are united and pliable/flexible at their points of joinder or elbow comprising of parts 22, 23, and 24 (Fig. 1). As to claims 7 and 9, the teeth-cleaning means 20 is capable of having a range of flexibility, i.e. it can bend, from 0 to 90 degrees relative to its original position or relative to the handle 14 at elbow 22/23/24; and it is capable of bending to the left and to the right by 90 degrees for at least 20 times without breaking. The handling means 14 is shown to comprise ridges and/or grooves 26 (Fig. 1).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 3-6, and 11-17, are rejected under 35 U.S.C. 103(a) as being unpatentable over Halm (5052071) in view of Neves (6102051).**

Halm discloses the invention substantially as claimed (see rejection above). Halm further discloses the toothbrush to be formed of polypropylene, which is a type of polymer and also a thermoplastic resin. However, Halm fails to disclose the teeth-cleaning means comprising arms securing one or more length of interdental material of dental floss (claims 3-4, 11). Halm also fails to disclose a tapered portion being chisel-shaped or pointed at an end of the apparatus (claims 5-6, 12-13).

Neves discloses a dental hygiene apparatus 10 with a teeth-cleaning means 12 comprises arms 13 and 14 securing a length of interdental material of dental floss 15 (Fig. 1). Neves also discloses the dental hygiene apparatus 10 further comprises a tapered portion 18

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being chisel-shaped and pointed at one end of the apparatus (Fig. 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Halm by including the arms securing a length of dental floss so that the apparatus can be used to clean thoroughly the area between two teeth where the brush as disclosed by Halm would not have been able to reach. Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Halm by making the other end of the apparatus a chisel-shaped or pointed portion so that it can be used to scrape out hard plaque on the teeth.

**6. Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Preciutti (4920992) in view of Gordon (5184719).**

Preciutti discloses the invention substantially as claimed. However, Preciutti fails to disclose a guarding means for preventing a user from using said apparatus (claims 18-21).

Gordon discloses a disposable toothbrush and flossing device 10 having a guarding means comprising of package 21 (Fig. 1). Package 21 is a thin material that is capable of securely grips and covers the cleaning clean by sealing at its edges which comprise of locking ridges and mating recesses and cannot be removed without destruction of the package. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include such package as a guarding means to Preciutti's device in order to prevent tampering and maintain the device clean and free of contamination prior to usage.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAO D. MAI whose telephone number is (571)270-3002. The examiner

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can normally be reached on Monday-Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on (571) 272-4964.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. D. M./  
Examiner, Art Unit 3732

**/John J Wilson/  
Primary Examiner, Art Unit 3732**